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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,400	11/17/2003	James Stephen Emslie	1519-038	2043
22429	7590	06/30/2005	EXAMINER	
LOWE HAUPTMAN GILMAN AND BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 /310 ALEXANDRIA, VA 22314			TRAN, THUY V	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/714,400

**Applicant(s)**

EMSLIE ET AL.

**Examiner**

Thuy V. Tran

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on response submitted on 4/14/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 11 is/are rejected.
- 7) ☒ Claim(s) 2-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/8/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This is a reply to the Applicants' response to the Restriction Requirement submitted on April 14<sup>th</sup>, 2005. In virtue of this response, Invention Group I including claims 1-11 is elected.

For convenience in review and for clarity of the record of the file, part of the Restriction Requirement is being provided herewith:

#### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-11, drawn to a backlighting system for a display apparatus, classified in class 362, subclass 561.
  - II. Claims 12-20, drawn to a method of controlling the power distribution to at least a light source within a display apparatus, classified in class 315, subclass 315/308.
2. Inventions Group I and Group II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the inventions Groups I and II are incapable of being used together since they have different functions/effects: the invention Group I leads to a complete structure of a backlight system for a display apparatus while the invention Group II leads to a process of controlling the power distribution within the display.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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4. A telephone call was made to Mr. Benjamin J. Hauptman on 02/08/2005 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicants are advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Response to Applicants' Election with traverse***

6. Applicants' election with traverse of Invention Group I including claims 1-11 in the reply filed on April 14<sup>th</sup>, 2005 is acknowledged. The traversal is on the ground(s) that (i) characterizing the two Inventions Group I and II unrelated is inaccurate, and (ii) Invention Group II is mischaracterized: it is directed to a system, not a method. This is not found persuasive because (i) Invention Group I is directed to a generally mechanical structure of a backlighting system while Invention Group II is specifically directed to a process of controlling the distribution of power to at least a light source (e.g. independent claim 12, and dependent claims 13, 16, 17, 18, 19, and 20); and as such, the two Inventions are directed to divergent subject matter, and (ii) independent claim 12 and other dependents such as claims 13 and 16-20 do not set forth any configuration of elements/parts/devices involved in the power distribution system, it is not clear what system Applicants are intending to encompass, even though the phrase "A

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power distribution system for at least one light source within a display apparatus” exists in the preamble of the claim; and as such, based on the steps provided in a number of claims such as claims 12-13 and 16-20, this group of claims is categorized as Invention Group II for the controlling process provided therein.

The requirement is still deemed proper and is therefore made FINAL.

7. Claims 12-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention Group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on April 14<sup>th</sup>, 2004.

***Priority***

8. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Inventorship***

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

***Information Disclosure Statement***

10. The information disclosure statement (IDS) submitted on 03/08/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Drawings Objections***

11. The drawings are objected to because:

- The drawing lines in all figures are not clear and uniform; and
- Reference numerals/characters in all figures are not legible.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Abstract Objection***

12. The abstract of the disclosure is objected to because:

Line 18 (including the lines in blank space), "(Figure 1a)" should be deleted.

Correction is required. See MPEP § 608.01(b).

***Claim Objections/ Minor Informalities***

13. Claim 1 is objected to because of the following informalities:

Claim 1, line 7, "In" should be changed to --in--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasuga et al. (U.S. Patent No. 5,432,626).

With respect to claim 1, Sasuga et al. discloses, in Fig. 37, a backlighting system for a display apparatus comprising (1) at least one light source [BL], (2) electronic componentry [IPCB] (which is inverter circuit; see col. 24, lines 52-53) adapted to receive electrical power and to control the distribution of electrical power to the at least one light source [BL], (3) at least one circuit board substrate (on which the inverter is formed) on which the electronic componentry is mounted and including an arrangement of conductive tracks (see Fig. 37), and (4) electrical connection means [LD] provided in the circuit board substrate and connected to the conductive

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tracks, wherein the electrical connection means is directly electrically and physically connected to the at least one light source [BL] to conduct the electrical power distributed by the electronic componentry (which is the inverter) to the at least one light source [BL].

With respect to claim 11, Figs. 14-15 of Sasuga et al. show that the display apparatus is a multi-layer display.

***Allowable Subject Matter***

16. Claims 2-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest:

- A backlighting system for a display apparatus wherein said at least one circuit board substrate comprises a first circuit board substrate on which said electronic componentry is mounted and a second circuit board substrate including said electrical connection means which are directly electrically and physically connected to said at least one light source, wherein further electrical connection means are provided between said first and second circuit board substrates, in combination with the remaining claimed limitations as called for in claim 2 (claims 3-7 would be allowable since they are dependent on claim 2); and
- A backlighting system for a display apparatus wherein said electronic componentry includes a plurality of control means, each of which controls the distribution of power to more than one light source, each control means receiving feedback of the electrical



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power consumption of its selected number of light sources and adjusting the power supplied to the selected number of light sources accordingly, in combination with the remaining claimed limitations as called for in claim 8 (claims 9-10 would be allowable since they are dependent on claim 8).

***Citation of relevant prior art***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Morishita et al. (U.S. Patent No. 6,504,587) discloses an LCD.

***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

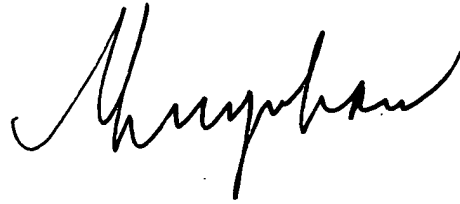
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A handwritten signature in black ink, appearing to read 'Thuy V. Tran', written in a cursive style.

**THUY V. TRAN**  
**PRIMARY EXAMINER**